

=> d his

(FILE 'HOME' ENTERED AT 09:05:35 ON 17 NOV 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'
ENTERED AT

09:06:01 ON 17 NOV 2002

L1 18424 S (BOTULINUM TOXIN) OR (BUTYRICUM TOXIN) OR (TETANI
TOXIN) OR (

L2 49279 S GNRH

L3 4813 S GNRH RECEPTOR

L4 2836 S (TARGET? MOIETY) OR (TARGET? DOMAIN) OR (TARGET?
COMPONENT)

L5 0 S L1 (P) L2

L6 0 S L1 (P) L3

L7 8 S L1 (P) L4

L8 4 DUPLICATE REMOVE L7 (4 DUPLICATES REMOVED)

L9 88206 S LIGHT CHAIN

L10 673 S (TRANSLOCAT? DOMAIN) OR (TRANSLOCAT? COMPONENT)

L11 0 S L9 (P) L10 (P) L4

L12 9 S L9 (P) L4

L13 0 S L12 (P) L1

L14 5 DUPLICATE REMOVE L12 (4 DUPLICATES REMOVED)

L15 5 S L14 NOT L8

L16 1 S GONADOTROPHIN RELATED DISEASE

L17 472293 S (BREAST CANCER) OR (PROSTATE CANCER) OR
(PANCREATIC CANCER) O

L18 0 S (L16 OR L17) (P) (L8 OR L14)

=> log y

FILE 'HOME' ENTERED AT 09:05:35 ON 17 NOV 2002

| => file medline caplus biosis embase scisearch agricola | SINCE FILE | TOTAL |
|---|------------|---------|
| COST IN U.S. DOLLARS | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'MEDLINE' ENTERED AT 09:06:01 ON 17 NOV 2002

FILE 'CAPLUS' ENTERED AT 09:06:01 ON 17 NOV 2002
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FILE 'AGRICOLA' ENTERED AT 09:06:01 ON 17 NOV 2002

=> s (botulinum toxin) or (butyricum toxin) or (tetani toxin) or (clostridial toxin)
L1 18424 (BOTULINUM TOXIN) OR (BUTYRICUM TOXIN) OR (TETANI TOXIN) OR
(CLOSTRIDIAL TOXIN)

=> s gnrh
L2 49279 GNRH

=> s gnrh receptor
L3 4813 GNRH RECEPTOR

=> s (target? moiety) or (target? domain) or (target? component)
L4 2836 (TARGET? MOIETY) OR (TARGET? DOMAIN) OR (TARGET? COMPONENT)

=> s l1 (p) l2
L5 0 L1 (P) L2

=> s l1 (p) l3
L6 0 L1 (P) L3

=> s l1 (p) l4
L7 8 L1 (P) L4

=> duplicate remove l7
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L7
L8 4 DUPLICATE REMOVE L7 (4 DUPLICATES REMOVED)

=> d l8 1-4 ibib abs

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:89857 CAPLUS
DOCUMENT NUMBER: 136:145260
TITLE: Clostridial toxin derivatives and methods for treating
pain
INVENTOR(S): Donovan, Stephen
PATENT ASSIGNEE(S): Allergan Sales, Inc., USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

WO 2002007759 A2 2002-01-131 WO 2001-US21984 2001-01-12

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-625098 A 20000725

AB Methods for treating a bone tumor, in particular pain assocd. with bone tumor, by administration to a patient of a therapeutically effective amt. of an agent are disclosed. The agent may include a clostridial neurotoxin component attached to a targeting moiety, wherein the targeting moiety is selected from the group consisting of transmission compds. which can be released from neurons upon the transmission of pain signals by the neurons, and compds. substantially similar to the transmission compds.

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:241331 CAPLUS

DOCUMENT NUMBER: 136:273210

TITLE: Clostridial toxin derivatives and methods for treating pain

INVENTOR(S): Donovan, Stephen

PATENT ASSIGNEE(S): Allergan Sales, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U.S. Ser. No. 625,098.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2002037833 | A1 | 20020328 | US 2001-922093 | 20010803 |

PRIORITY APPLN. INFO.: US 2000-489667 A2 20000119
US 2000-625098 A2 20000725

AB Agents for treating pain, methods for producing the agents and methods for treating pain by administration to a patient of a therapeutically effective amt. of the agent are disclosed. The agent can include a clostridial neurotoxin, or a component or fragment or deriv. thereof, attached to a ***targeting*** ***moiety***, wherein the ***targeting*** ***moiety*** is selected from a group consisting of transmission compds. which can be released from neurons upon the transmission of pain signals by the neurons, and compds. substantially similar to the transmission compds. The agent comprises a ***botulinum*** ***toxin*** component covalently coupled to substance P.

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:228744 CAPLUS

DOCUMENT NUMBER: 134:247267

TITLE: Clostridial neurotoxin targeted conjugates for inhibition of secretion from non-neuronal cells

INVENTOR(S): Foster, Keith Alan; Chaddock, John Andrew; Purkiss, John Robert; Quinn, Conrad Padraig

PATENT ASSIGNEE(S): Microbiological Research Authority, UK

SOURCE: PCT Int. Appl., 63 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| WO 2001021213 | A2 | 20010329 | WO 2000-GB3669 | 20000925 |
| WO 2001021213 | A3 | 20020711 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
 HU, ID, IL, IN, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
 ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1235594 A2 20020904 EP 2000-962721 20000925

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL

PRIORITY APPLN. INFO.: GB 1999-22554 A 19990923
 WO 2000-GB3669 W 20000925

AB A method of treatment of disease by inhibition of cellular secretory processes is provided. The method has particular application in the treatment of diseases dependent on the exocytotic activity of endocrine cells, exocrine cells, inflammatory cells, cells of the immune system, cells of the cardiovascular system, and bone cells. Agents and compns. therefor, as well as methods for manufg. these agents and compns., are provided. In a preferred embodiment a clostridial neurotoxin, substantially devoid of holotoxin binding affinity for neuronal cells of the presynaptic muscular junction, is assocd. with a ***targeting*** ***moiety***. The ***targeting*** ***moiety*** is selected such that the ***clostridial*** ***toxin*** conjugate so formed may be directed to a non-neuronal target cell to which the conjugate may bind. Following binding, a neurotoxin component of the conjugate, which is capable of inhibition of cellular secretion, passes into the cytosol of the target cell by cellular internalization mechanisms. Thereafter, inhibition of secretion from the target cell is effected.

L8 ANSWER 4 OF 4 MEDLINE DUPLICATE 1
 ACCESSION NUMBER: 2000273725 MEDLINE
 DOCUMENT NUMBER: 20273725 PubMed ID: 10813652
 TITLE: Identification of novel small molecule ligands that bind to tetanus toxin.
 AUTHOR: Lightstone F C; Prieto M C; Singh A K; Piqueras M C; Whittall R M; Knapp M S; Balhorn R; Roe D C
 CORPORATE SOURCE: Biology and Biotechnology Research Program, Lawrence Livermore National Laboratory, Livermore, California 94550, USA.
 CONTRACT NUMBER: RR01614 (NCRR)
 SOURCE: CHEMICAL RESEARCH IN TOXICOLOGY, (2000 May) 13 (5) 356-62. Journal code: 8807448. ISSN: 0893-228X.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200007
 ENTRY DATE: Entered STN: 20000720
 Last Updated on STN: 20000720
 Entered Medline: 20000711

AB Tetanus toxin belongs to a family of clostridial protein neurotoxins for which there are no known antidotes. Another closely related member of this family, ***botulinum*** ***toxin***, is being used with increasing frequency by physicians to treat severe muscle disorders. ***Botulinum*** ***toxin*** has also been produced in large quantities by terrorists for use as a biological weapon. To identify small molecule ligands that might bind to the ***targeting*** ***domain*** of tetanus and ***botulinum*** ***toxins*** and to facilitate the design of inhibitors and new reagents for their detection, molecular docking calculations were used to screen a large database of compounds for their potential to bind to the C fragment of tetanus toxin. Eleven of the predicted ligands were assayed by electrospray ionization mass spectrometry (ESI-MS) for binding to the tetanus toxin C fragment, and five ligands (45%) were found to bind to the protein. One of these compounds, doxorubicin, was observed to have strong hydrophobic interactions with the C fragment. To check the ligands for their ability to compete with ganglioside binding, each was also tested using a GT1b liposome assay. Doxorubicin was the only ligand found to competitively bind the tetanus toxin C fragment with an appreciable binding constant (9.4 microm).

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L1 18424 S (BOTULINUM TOXIN) OR (BUTYRICUM TOXIN) OR (TETANI TOXIN) OR (
L2 49279 S GNRH
L3 4813 S GNRH RECEPTOR
L4 2836 S (TARGET? MOIETY) OR (TARGET? DOMAIN) OR (TARGET? COMPONENT)
L5 0 S L1 (P) L2
L6 0 S L1 (P) L3
L7 8 S L1 (P) L4
L8 4 DUPLICATE REMOVE L7 (4 DUPLICATES REMOVED)

=> s light chain

L9 88206 LIGHT CHAIN

=> s (translocat? domain) or (translocat? component)

L10 673 (TRANSLOCAT? DOMAIN) OR (TRANSLOCAT? COMPONENT)

=> s l9 (p) l10 (p) l4

L11 0 L9 (P) L10 (P) L4

=> s l9 (p) l4

L12 9 L9 (P) L4

=> s l12 (p) l1

L13 0 L12 (P) L1

=> duplicate remove l12

DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L12

L14 5 DUPLICATE REMOVE L12 (4 DUPLICATES REMOVED)

=> s l14 not l8

L15 5 L14 NOT L8

=> d l15 1-5 ibib abs

L15 ANSWER 1 OF 5 MEDLINE
ACCESSION NUMBER: 2002136343 MEDLINE
DOCUMENT NUMBER: 21840684 PubMed ID: 11851407
TITLE: Dissection of the pathway of molecular recognition by
calmodulin.
AUTHOR: Kranz James K; Flynn Peter F; Fuentes Ernesto J; Wand A
Joshua
CORPORATE SOURCE: The Johnson Research Foundation and Department of
Biochemistry and Biophysics, University of Pennsylvania,
Philadelphia, Pennsylvania 19104-6059, USA.
CONTRACT NUMBER: DK39806 (NIDDK)
GM20206 (NIGMS)
SOURCE: BIOCHEMISTRY, (2002 Feb 26) 41 (8) 2599-608.
Journal code: 0370623. ISSN: 0006-2960.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200203
ENTRY DATE: Entered STN: 20020302
Last Updated on STN: 20020403
Entered Medline: 20020328

AB Amide hydrogen exchange has been used to examine the structural dynamics
and energetics of the interaction of a peptide corresponding to the
calmodulin-binding domain of smooth muscle myosin ***light***
chain kinase (smMLCKp) with calcium-saturated calmodulin.
Heteronuclear NMR (15)N-(1)H correlation spectroscopy was used to quantify
amide proton exchange rates of the uniformly (15)N-labeled domain bound to
calmodulin. A key feature of a proposed model for molecular recognition by
calmodulin [Ehrhardt et al. (1995) Biochemistry 34, 2731-2738] is tested

AB The invention provides a method for making fusion proteins which involves having a ***target*** ***moiety***, such as an Ig subunit, fused to a second member, such as a multimeric enzyme. The ***targeting*** ***moiety*** (Ig) and second member (enzyme) of the fusion protein are chosen such that the fusion protein assembles into a complex having the no. of subunits which optimizes the activity of the multimeric form of the enzyme. The invention relates that the Ig subunit is modified. The invention specifically provides for the methods used for fusing an anti-carcinoembryonic antigen human Ig ***light*** ***chain*** to a human Ig heavy chain-.beta.-glucuronidase fusion protein. The Ig heavy chain-.beta.-glucuronidase assembles with the Ig ***light*** ***chain*** to produce a functional complex with .beta.-glucuronidase activity. The invention also provides DNA constructs (plasmids) used in transforming mammals for prodn. of said fusion proteins which include: (1) a single DNA construct contg. sequences encoding both the Ig ***light*** ***chain*** and Ig heavy chain-.beta.-glucuronidase fusion protein; (2) DNA construct contg. sequences encoding the Ig ***light*** ***chain***; and (3) DNA construct contg. sequences encoding the Ig heavy chain-.beta.-glucuronidase fusion protein. The invention further provides that the fusion protein can be produced in milk of transgenic mammals, if the DNA construct used to transform said mammal contains: (1) an insulator sequence (control element); (2) a signal sequence (either

from Ig or .beta. casein), and (3) promoter and 3'-untranslated sequences from the .beta. casein gene. In the example section, the invention described in detail the materials and methods used in prodn. of said DNA constructs and fusion protein, and characterized transgenic mice transformed with said DNA constructs. The invention also provided the DNA and amino acid sequences of the anti-carcinoembryonic antigen light and heavy Ig chains, and sequence changes due to modifications.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:96139 CAPLUS

DOCUMENT NUMBER: 130:167161

TITLE: Directed cytolysis of target cells, agents and compositions causing cytolysis, and compounds that can be used to produce the agents

INVENTOR(S): Soegaard, Morten; Abrahmsen, Lars; Lando, Peter; Forsberg, Goran; Kalland, Terje; Dohlsten, Mikael

PATENT ASSIGNEE(S): Pharmacia & Upjohn Ab, Swed.

SOURCE: PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9904820 | A2 | 19990204 | WO 1998-EP4219 | 19980702 |
| WO 9904820 | A3 | 19990812 | | |
| W: AU, BG, BR, CA, CN, CZ, HU, ID, IL, JP, KR, MX, NO, NZ, PL, RO, SG, SI, UA, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 9884415 | A1 | 19990216 | AU 1998-84415 | 19980702 |
| AU 748097 | B2 | 20020530 | | |
| EP 998305 | A2 | 20000510 | EP 1998-935025 | 19980702 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI | | | | |
| BR 9815493 | A | 20001031 | BR 1998-15493 | 19980702 |
| JP 2001510687 | T2 | 20010807 | JP 2000-503871 | 19980702 |
| ZA 9806431 | A | 19990127 | ZA 1998-6431 | 19980720 |
| NO 2000000265 | A | 20000315 | NO 2000-265 | 20000119 |

PRIORITY APPLN. INFO.: US 1997-53211P P 19970721
SE 1997-4170 A 19971114
WO 1998-EP4219 W 19980702

AB A method for inactivating target cells in the presence of T cells by bringing the two types of cells in contact with a superantigen (SAG) in the presence of an immune modulator, characterized in that at least one of the superantigen and the immune modulator is in the form of a conjugate between a "free" superantigen (SAG) and a moiety targeting the conjugate to the target cells. A superantigen conjugate complying with the formula (I): (T)x(SAG)y(IM)z; (a) T is a targeting moiety, SAG corresponds to a free superantigen, IM is an immune modulator that is not a superantigen and T, SAG and IM are linked together via org. linkers B; (b) x, y and z are integers that typically are selected among 0-10 and represent the no. of moieties T, SAG and IM, resp., in a given conjugate mol., with the provision that y > 0 and also one or both of x and z > 0. The superantigen conjugate is preferably a triple fusion protein. A targeted immune modulator, characterized in that it is a conjugate between a targeting moiety (T'') and a modified immune modulator (IM''). The conjugate complies with a formula analogous to formula (I) except for the imperative presence of the modified immune modulator. A superantigen moiety may be present. A DNA mol. encoding a superantigen and an immune modulator. Thus, triple fusion proteins contg. CD80 or interleukin 2, anti-C215 antigen Fab, and Staphylococcal enterotoxin A were prepd. and used for tumor therapy.

L15 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:761969 CAPLUS

DOCUMENT NUMBER: 130:29189

TITLE: Fusion proteins of prodrug activating enzymes and

INVENTOR(S): targetting moieties and their therapeutic uses
 Emery, Stephen Charles; Blakey, David Charles
 PATENT ASSIGNEE(S): Zeneca Limited, UK
 SOURCE: PCT Int. Appl., 106 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9851787 | A2 | 19981119 | WO 1998-GB1294 | 19980505 |
| WO 9851787 | A3 | 19990401 | | |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9872254 | A1 | 19981208 | AU 1998-72254 | 19980505 |
| AU 734915 | B2 | 20010628 | | |
| GB 2338484 | A1 | 19991222 | GB 1999-22815 | 19980505 |
| GB 2338484 | B2 | 20011107 | | |
| EP 979292 | A2 | 20000216 | EP 1998-919380 | 19980505 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| BR 9808769 | A | 20000801 | BR 1998-8769 | 19980505 |
| JP 2001526539 | T2 | 20011218 | JP 1998-548892 | 19980505 |
| ZA 9803931 | A | 19981110 | ZA 1998-3931 | 19980508 |
| NO 9905475 | A | 20000107 | NO 1999-5475 | 19991109 |
| US 6339070 | B1 | 20020115 | US 1999-423439 | 19991109 |

PRIORITY APPLN. INFO.: GB 1997-9421 A 19970510
 WO 1998-GB1294 W 19980505

AB A method of limiting prodrug activation to a specific cell type by targetting prodrug activating enzymes to that cell type as fusion proteins with cell-specific ligands is described. The cell-specific ligand may be an antibody, e.g. to a disease marker. Alternatively, the gene for the protein may be placed under control of a promoter that is only functional in the disease, e.g. a tumor marker gene. Chimeric genes for fusion proteins of carboxypeptidase G2 (CPG2) and heavy and light chains of antibodies to carcinoembryonic antigen were constructed by std. methods. The fusion protein manufd. in animal cells dimerized through the dimerization domain of CPG2. The fusion protein was able to activate the prodrug PGP to the cytotoxic 4-[N,N-Bis(2-chloroethyl)aminolphenol. HCT116 cells transformed with the gene for this protein had an IC50 for PGP of 200 .mu.M compared to 1 .mu.M for the activated drug.

L15 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:575 CAPLUS
 DOCUMENT NUMBER: 120:575
 TITLE: Immunotoxins directed against c-erbB-2-related surface antigens

INVENTOR(S): Rosenblum, Michael G.; Shawver, Laura K.
 PATENT ASSIGNEE(S): Research Development Foundation, USA
 SOURCE: PCT Int. Appl., 61 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 9321232 | A1 | 19931028 | WO 1993-US3292 | 19930408 |
| W: AU, CA, FI, JP, KR, NO, NZ, RU | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| ZA 9302522 | A | 19931220 | ZA 1993-2522 | 19930101 |
| AU 9342804 | A1 | 19931118 | AU 1993-42804 | 19930408 |
| AU 671642 | B2 | 19960905 | | |

| | | | | |
|----------------------|----|--------------------------------|----------------|---------------|
| EP 635030 | A1 | 19950125 | EP 1993-912147 | 19930408 |
| R: AT, BE, CH, DE, D | | ES, FR, GB, GR, IE, IT, LI, LU | | C, NL, PT, SE |
| JP 07505882 | T2 | 19950629 | JP 1993-518465 | 19930408 |
| RU 2130780 | C1 | 19990527 | RU 1994-45908 | 19930408 |
| IL 105345 | A1 | 20000928 | IL 1993-105345 | 19930408 |
| NO 9403777 | A | 19941129 | NO 1994-3777 | 19941007 |
| FI 9404731 | A | 19941202 | FI 1994-4731 | 19941007 |

PRIORITY APPLN. INFO.:

| | | |
|----------------|---|----------|
| US 1992-867728 | A | 19920410 |
| WO 1993-US3292 | A | 19930408 |

AB The novel immunotoxins comprise a c-erbB-2 ***targeting***
 moiety (e.g., a segment, a ***light*** ***chain***, or a heavy chain of an antibody to c-erbB-2) and a cell growth modulator (e.g., a plant toxin such as gelonin). The immunotoxins kill neoplastic cells overexpressing c-erbB-2 protein and therefore are useful for treating mammary, human ovarian, lung, and gastric carcinomas; salivary gland and colon adenocarcinomas; and bone marrow leukemia. Thus, gelonin was purified from seeds of Gelonium multiflorum, and mouse monoclonal antibody to c-erbB-2 was prepd. SPDP-modified monoclonal antibody was conjugated with 2-iminothiolane-modified gelonin. The cytotoxicity of the antibody-gelonin conjugates was demonstrated on human breast adenocarcinoma cells.

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(FILE 'HOME' ENTERED AT 09:05:35 ON 17 NOV 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 09:06:01 ON 17 NOV 2002

| | |
|-----|---|
| L1 | 18424 S (BOTULINUM TOXIN) OR (BUTYRICUM TOXIN) OR (TETANI TOXIN) OR (|
| L2 | 49279 S GNRH |
| L3 | 4813 S GNRH RECEPTOR |
| L4 | 2836 S (TARGET? MOIETY) OR (TARGET? DOMAIN) OR (TARGET? COMPONENT) |
| L5 | 0 S L1 (P) L2 |
| L6 | 0 S L1 (P) L3 |
| L7 | 8 S L1 (P) L4 |
| L8 | 4 DUPLICATE REMOVE L7 (4 DUPLICATES REMOVED) |
| L9 | 88206 S LIGHT CHAIN |
| L10 | 673 S (TRANSLOCAT? DOMAIN) OR (TRANSLOCAT? COMPONENT) |
| L11 | 0 S L9 (P) L10 (P) L4 |
| L12 | 9 S L9 (P) L4 |
| L13 | 0 S L12 (P) L1 |
| L14 | 5 DUPLICATE REMOVE L12 (4 DUPLICATES REMOVED) |
| L15 | 5 S L14 NOT L8 |

=> s gonadotrophin related disease

| | |
|-----|---------------------------------|
| L16 | 1 GONADOTROPHIN RELATED DISEASE |
|-----|---------------------------------|

=> s (breast cancer) or (prostate cancer) or (pancreatic cancer) or (endometrial cancer)

| | |
|-----|--|
| L17 | 472293 (BREAST CANCER) OR (PROSTATE CANCER) OR (PANCREATIC CANCER) OR (ENDOMETRIAL CANCER) |
|-----|--|

=> s (l16 or l17) (p) (l8 or l14)

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
 FIELD CODE - 'AND' OPERATOR ASSUMED 'L115) (P) '
 PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
 FIELD CODE - 'AND' OPERATOR ASSUMED 'L116) (P) '
 PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
 FIELD CODE - 'AND' OPERATOR ASSUMED 'L117) (P) '
 PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
 FIELD CODE - 'AND' OPERATOR ASSUMED 'L118) (P) '
 L18 0 (L16 OR L17) (P) (L8 OR L14)

=> d his

(FILE 'HOME' ENTERED AT 09:05:35 ON 17 NOV 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 09:06:01 ON 17 NOV 2002

| | |
|----|---|
| L1 | 18424 S (BOTULINUM TOXIN) OR (BUTYRICUM TOXIN) OR (TETANI TOXIN) OR (|
| L2 | 49279 S GNRH |
| L3 | 4813 S GNRH RECEPTOR |

L4 2836 S (TARGET? MOIETY) OR (TARGET? DOMAIN) OR (TARGET? COMPONENT)
 L5 0 S L1 (P) L2
 L6 0 S L1 (P) L3
 L7 8 S L1 (P) L4
 L8 4 DUPLICATE REMOVE L7 (4 DUPLICATES REMOVED)
 L9 88206 S LIGHT CHAIN
 L10 673 S (TRANSLOCAT? DOMAIN) OR (TRANSLOCAT? COMPONENT)
 L11 0 S L9 (P) L10 (P) L4
 L12 9 S L9 (P) L4
 L13 0 S L12 (P) L1
 L14 5 DUPLICATE REMOVE L12 (4 DUPLICATES REMOVED)
 L15 5 S L14 NOT L8
 L16 1 S GONADOTROPHIN RELATED DISEASE
 L17 472293 S (BREAST CANCER) OR (PROSTATE CANCER) OR (PANCREATIC CANCER) O
 L18 0 S (L16 OR L17) (P) (L8 OR L14)

=> log y

| | | |
|--|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 88.47 | 88.68 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | -4.34 | -4.34 |

STN INTERNATIONAL LOGOFF AT 09:18:45 ON 17 NOV 2002